

chromium, 0.05 to 0.3% molybdenum, 0.2 to 0.3% vanadium, 0.02 to 0.08% niobium, 1.45 to 2.1% tungsten, 0 to 0.03% nitrogen, 0.0005 to 0.006% boron, and 0 to 0.03% aluminium;

heat treating the rotor at a temperature range of 650°C to 750°C; and
machining the rotor to remove at least a portion of the weld metal.

REMARKS

By way of the foregoing amendments, the specification and claims have been amended to place them in better form for examination. No new matter has been added.

Early and favorable consideration with respect to this application is respectfully requested. Should any questions arise in connection with this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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Attachment to Supplemental Preliminary Amendment dated June 19, 2002

Marked-up Claims 2-24 and 26

2. (Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises at least 0.06% carbon.
3. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises at least 0.3% manganese.
4. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises 0.005% or less sulphur.
5. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises at least 1.7% tungsten.
6. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises at least 0.04% niobium.
7. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises 0.02% or less nitrogen.
8. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal further comprises 0.5% or less nickel.

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9. (Twice Amended) [A] The method according to Claim 1, wherein the [said] weld metal comprises [substantially] 0.075 % carbon, 0.2 % silicon, 0.5 % manganese, 0.001 % sulphur, 0.017 % phosphorous, 2.2 % chromium, 0.1 % molybdenum, 0.1 % nickel, 0.23 % vanadium, 0.06 % niobium, 0.05 % titanium, 1.9 % tungsten, 0.009 % nitrogen, 0.003 % boron and 0.02 % aluminium.

10. (Twice Amended) [A] The method according to Claim 1, wherein the rotor element is formed from steel which comprises from 0.15 to 0.35 % carbon, from 0 to 0.3 % silicon, from 0.2 to 1 % manganese, from 0 to 0.03 % sulphur, from 0 to 0.03 % phosphorous, from 0.3 to 1 % nickel, from 0.7 to 1.50 % chromium, from 0.5 to 1.2 % molybdenum, and from 0.2 to 0.4 % vanadium.

11. (Twice Amended) [A] The method according to Claim [1] 10, wherein the rotor element is formed from steel comprising [substantially] 0.25 % carbon, 0.23 % silicon, 0.64 % manganese, 0.005 % sulphur, 0.01 % phosphorous, 0.56 % nickel, 0.8 % chromium, 0.78 % molybdenum, and 0.35 % vanadium.

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12. (Twice Amended) [A] The method according to Claim 1, comprising providing a second rotor element having a composition substantially the same as the [said] rotor element and welding the [said] second rotor element to the [said] rotor element using the [said] weld metal.

13. (Twice Amended) [A] The method according to Claim 1, wherein the [said] welding process is a submerged-arc welding process.

14. (Twice Amended) [A] The method according to Claim 1, wherein the [said] method comprises a step of machining a rotor component to form [at least one of] the [said] rotor [elements] element.

15. (Twice Amended) [A] The method according to Claim 1, comprising a step of machining the [said] weld metal after the [weld has been formed] step of welding.

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16. (Amended) A rotor for a turbine, comprising a rotor element and weld metal welded to the [said] rotor element[;], wherein the weld metal comprises: from 0.04 to 0.1% carbon, from 0 to 0.5% silicon, from 0.1 to 0.6% manganese, from 0 to 0.01% sulphur, from 0 to 0.03% phosphorous, from 1.9 to 2.6% chromium, from 0.05 to 0.3% molybdenum, from 0.2 to 0.3% vanadium, from 0.02 to 0.08% niobium, from 1.45 to 2.1% tungsten, from 0 to 0.03% nitrogen, from 0.0005 to 0.006% boron and from 0 to 0.03% aluminium.

17. (Amended) [A] The rotor according to Claim 16, wherein the [said] weld metal comprises at least 0.06% carbon.

18. (Twice Amended) [A] The rotor according to Claim 16, wherein the [said] weld metal comprises at least 0.3% manganese.

19. (Twice Amended) [A] The rotor according to Claim 16, wherein the [said] weld metal comprises 0.005% or less sulphur.

20. (Twice Amended) [A] The rotor according to Claim 16, wherein the [said] weld metal comprises at least 1.7% tungsten.

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21. (Twice Amended) [A] The rotor according to Claim 16, wherein the [said] weld metal comprises at least 0.04 % niobium.
22. (Twice Amended) A rotor according to Claim 16, wherein the [said] weld metal comprises 0.02 % or less nitrogen.
23. (Twice Amended) A rotor according to Claim 16, wherein the [said] weld metal further comprises 0.5 % or less nickel.
24. (Twice Amended) A rotor according to Claim 16, wherein the [said] weld metal comprises [substantially] 0.075 % carbon, 0.2 % silicon, 0.5 % manganese, 0.001 % sulphur, 0.017 % phosphorous, 2.2 % chromium, 0.1 % molybdenum, 0.1 % nickel, 0.23 % vanadium, 0.06 % niobium, 0.05 % titanium, 1.9 % tungsten, 0.009 % nitrogen, 0.003 % boron and 0.02 % aluminium.
26. (Twice Amended) A rotor according to Claim [16] 25, wherein the rotor element is formed from steel comprising [substantially] 0.25 % carbon, 0.23 % silicon, 0.64 % manganese, 0.005 % sulphur, 0.01 % phosphorous, 0.56 % nickel, 0.8 % chromium, 0.78 % molybdenum, and 0.35 % vanadium.